



REMARKS

The Examiner is thanked for the thorough examination of the application. A Declaration Under 37 C.F.R. § 1.132 is appended to this paper. No new matter is believed to be added to the application by this Response.

Entry Of Response

Entry of this Response under 37 C.F.R. § 1.116 is respectfully requested because it places the application in condition for allowance. Alternately, entry is requested as placing the application in better form for appeal.

Status Of The Claims

Claims 1-3, 5, and 7-21 are pending in this application.

Rejection under 35 U.S.C. § 103(a) over Suzuki in view of Schlager or Tatsuaki

Claims 1-3, 5, and 7-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki (USP 5,296,111) in view of Schlager (USP 6,780,306) or Tatsuaki (JP 8281272). Applicants traverse.

Distinctions of the present invention over Suzuki, Schlager and Tatsuaki were placed before the Examiner at pages 9-12 of the Amendment filed February 6, 2006. For brevity, these distinctions are not repeated here but are incorporated by reference.

In summary, Suzuki fails to teach vibrating the organic wastewater at a frequency of 10 cycles/sec to 100 cycles/sec, such as is set forth in claim 1 of the present invention. Schlager

uses high frequency ultrasound for agitation. Tatsuaki pertains to treating plating wastewater, which does not contain an organic material such as aminocarboxylic acid. At pages 11 and 12 of the Amendment filed February 6, 2006, Tables 2-4 in the specification were discussed as representing unexpected results for the present invention.

In his Response to Arguments at pages 2 and 3 of the Office Action, the Examiner is not convinced of the patentability of the invention. The Examiner points to column 11, lines 22-32 of Suzuki, which includes the statement: "The agitation inside the electrolytic bath can be carried out using any means so long as the electrolytic solution on the electrode surface can be moved to a satisfactory extent." The Examiner then asserts that process of Suzuki can be optimized by routine experimentation (in light of the vibrating plates discussed in the secondary references).

In order to rebut the Examiner's assertion, a Declaration Under 37 C.F.R. §1.132 is appended to this paper.

In the Example presented in the Declaration, an electrolytic oxidation treatment was conducted in the same manner as in Example 1 of the specification, except for adjusting the pH of the waste liquor to 7.0 using sodium hydroxide and sulfuric acid. The vibration frequencies used were 5, 10, 100 and 120 cycles/sec.

As a comparison, an electrolytic treatment was conducted in the same manner as the above-described Example, except for using a stirring apparatus corresponding to the stirring apparatus used in Suzuki instead of the vibrating apparatus used in Example 1 in the specification. Since there is only a disclosure of "vigorous stirring" in Example 5 of Suzuki, the Comparative Example in the Declaration used a general-purpose 70W high-power stirring apparatus (BL 1200, manufactured by Shinto Scientific CO., Ltd.) to achieve "vigorous stirring."

The stirring was performed at 300 rpm to the extent that the electrolyte did not overflow from the electrolyte tank.

The comparative results are set forth in the Table of the Declaration, which is reproduced below.

Table

Electrolysis Time (hr)	Example: Vibration frequency (cycle/second)								Comparative Example	
	5 (cycles/second)		10 (cycles/second)		100 (cycles/second)		120 (cycles/second)		COD	EDTA
	COD	EDTA	COD	EDTA	COD	EDTA	COD	EDTA		
0	20000	620	20000	620	20000	620	20000	620	20000	620
1	19300	600	18000	550	17900	530	19000	590	19500	600
2	18400	580	17700	390	17100	350	18100	540	18800	580
4	12100	530	11500	15	10900	10	13000	450	14500	540
6	9100	440	5800	0	5700	0	9000	390	11800	500
8	7300	360	4300	0	4100	0	7100	280	9800	420
10	6100	280	2900	0	2800	0	5900	220	7200	370

Unit: COD (ppm), EDTA (mg/L)

As is evident from the results in the Table of the Declaration, it was found the even if a stirring plate is used, when an electrolytic oxidation treatment is performed by vibrating at a frequency of 10 cycles/sec to 100 cycles/sec, COD and EDTA are unexpectedly and remarkably reduced when compared to electrolytic oxidation performed at a frequency outside the scope of the present invention. In the invention, CED and EDTA are unexpectedly and remarkably reduced compared to the Comparative Example that uses "vigorous stirring" as in Suzuki.

Therefore, a *prima facie* case of obviousness has not been made, and the unexpected results in the attached Declaration fully rebut any *prima facie* obviousness that can be alleged over the claims of the present invention. This rejection is overcome and withdrawal thereof is respectfully requested.



Information Disclosure Statement

The Examiner is thanked for considering the Information Disclosure Statement filed August 20, 2003 and for making the initialed PTO-1449 form of record in the application in the Office Action mailed October 6, 2005.

Foreign Priority

The Examiner has acknowledged foreign priority in the Office Actions mailed October 6, 2005 and May 4, 2006.

Conclusion

The Examiner's rejection has been overcome, obviated or rendered moot. No issues remain. It is believed that a full and complete response has been made to the Office Action. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert E. Goozner (Reg. No. 42,593) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/644,044
Response Under 37 C.F.R. §1.116
After Final Office Action of May 4, 2006

Docket No.: 0649-0908P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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